AMENDMENTS TO THE CLAIMS:

1-28. (Previously Cancelled)

29. (Currently Amended) A process for the hydrometallurgical processing of manganese containing materials, the process characterised by the combination of a manganese dioxide containing feedstock and an acidic solution to form an acidic solution to be leached, and passing a volume of sulphur dioxide gas through that leach solution as the leaching agent, whereby **no sintering or roasting pre-treatment step of the feedstock is undertaken and** the levels of dithionate ion generated in the leach solution are less than about 5g/l.

30. (Previously Amended) A process according to claim 29, wherein the levels of dithionate ion generated in the leach solution are less than about 1g/l.

31. (Previously Amended) A process according to claim 29, wherein the pH of the leach solution is maintained at less than about 1.5.

32. (Previously Amended) A process according to claim 29, wherein the leach solution comprises a slurry of manganese dioxide containing material at a slurry density of less than about 10%w/v, less than about 120g/l manganese sulphate, a temperature

of greater than about 95°C, and at a pH of less than about 1.5.

33. (Previously Amended) A process according to claim 29, wherein the manganese dioxide containing feedstock contains less than about 40% manganese.

34. (Previously Amended) A process according to claim 29, wherein the leach solution has an initial soluble iron concentration of greater than 4g/l.

35. (Previously Amended) A process according to claim 34, wherein the iron is in the form of ferric sulphate ($Fe_2(SO_4)_3$).

36. (Previously Amended) A process according to claim 29, wherein the ferrous concentration is maintained at a level below about 0.5g/l by providing an excess or residual amount of manganese dioxide in the slurry.

37. (Previously Amended) A process according to claim 29, wherein the ratio of ferric to ferrous is monitored at least at intervals throughout the leach to ensure an oxidation reduction potential (ORP) of 550mV, or above (vs Ag/AgCl reference electrode).

38. (Previously Amended) A process according to claim 29, wherein the sulphur

dioxide gas is preferably passed through the leach solution over a period of at least 10 hours whereby up to about 95% of manganese dioxide is dissolved.

39. (Previously Amended) A process according to claim 29, wherein the leach is conducted over a period of between about 10 to 15 hours.

40. (Previously Amended) A process according to claim 29, wherein once a stoichiometric amount of sulphur dioxide has been added to the leach solution to achieve a 95% dissolution of the manganese dioxide present, the reaction is halted.

41. (Currently Amended) A process for the production of electrolytic manganese dioxide, the process characterised by a leach of a manganese dioxide containing feedstock, **without a sintering or roasting pre-treatment step of that feedstock,** in which a volume of sulphur dioxide gas as the leaching agent is passed through an acidic solution containing manganese dioxide, the dithionate ion levels in said solution being maintained at less than about 5g/l, the resulting leach solution being processed to provide an appropriate electrolyte that is passed to an electrowinning stage during which electrolytic manganese dioxide is deposited.

42. (Previously Amended) A process according to claim 41, wherein the levels of dithionate ion generated in the leach solution are less than about 1g/l.

43. (Previously Amended) A process according to claim 41, wherein the pH of the leach solution is maintained at less than about 1.5.

44. (Previously Amended) A process according to claim 41, wherein the leach solution comprises a slurry of manganese dioxide containing material at a slurry density of less than about 10%w/v, less than about 120g/l manganese sulphate, a temperature of greater than about 95°C, and at a pH of less than about 1.5.

45. (Previously Amended) A process according to claim 41, wherein the manganese dioxide containing feedstock contains less than 40% manganese.

46. (Previously Amended) A process according to claim 41, wherein the leach solution has an initial soluble iron concentration of greater than 4g/l.

47. (Previously Amended) A process according to claim 46, wherein the iron is in the form of ferric sulphate ($Fe_2(SO_4)_3$).

48. (Previously Amended) A process according to claim 41, wherein the ferrous concentration is maintained at a level below about 0.5g/l by providing an excess or residual amount of manganese dioxide in the slurry.

49. (Previously Amended) A process according to claim 41, wherein the ratio of ferric to ferrous is monitored throughout the leach to ensure an oxidation reduction potential (ORP) of 550mV, or above (vs Ag/AgCl reference electrode).

50. (Previously Amended) A process according to claim 41, wherein the sulphur dioxide gas is passed through the leach solution over a period of at least 10 hours whereby up to about 95% of manganese dioxide is dissolved.

51. (Previously Amended) A process according to claim 41, wherein the leach is conducted over a period of between about 10 to 15 hours.

52. (Previously Amended) A process according to claim 41, wherein once a stoichiometric amount of sulphur dioxide has been added to the leach solution to achieve a 95% dissolution of the manganese dioxide present, the reaction is halted.

53. (Previously Amended) A process according to claim 41, wherein the acidic solution used in the leach is at least in part comprised of return or spent sulphuric acid solution from the electrowinning stage.

54. (Previously Amended) A process according to claim 41, wherein additional acid is added to the leach to ensure the pH remains less than about 1.5.